

CALIFORNIA ENERGY COMMISSION

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WEBSITES

Main website: www.energy.ca.gov

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**Fuels Office Petroleum Watch****September 12, 2005*****Introduction***

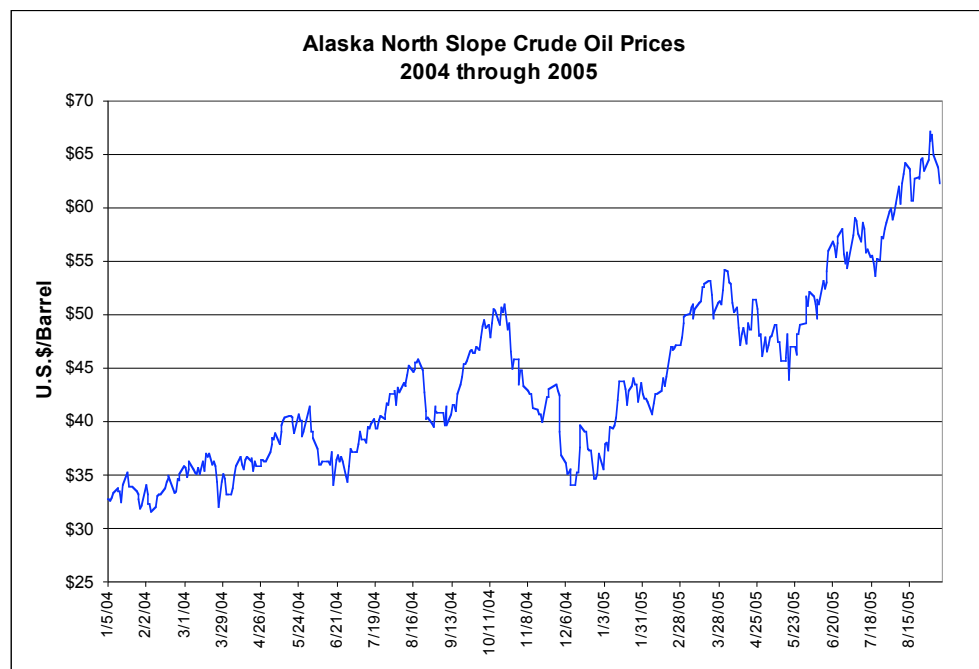
- Governor Arnold Schwarzenegger has directed the California Energy Commission to prepare a brief petroleum market summary focusing on causes and impacts of recent unprecedented crude oil and gasoline price increases. This summary will discuss petroleum prices, production levels and inventories in California and the U.S., in particular highlighting the recovery from Hurricane Katrina on the Gulf Coast and its influence on California fuel prices and supplies.

Crude Oil Prices and Inventories

- Commercial stockpiles of crude oil in the U.S. totaled 315 million barrels as of September 2, a sharp decline of over 6 million barrels from August 26. Although down from a peak of almost 334 million barrels in May, current stocks are still almost 25 million barrels above the average of the previous five years.
- After peaking at record-highs on August 30, world crude oil prices have steadily dropped in the last week. Prices for Alaska North Slope crude oil, an important refinery input for making gasoline and diesel on the West Coast, peaked at \$67.06 per barrel on August 30 before falling back to \$62.08 by September 9.¹
- The loss of Gulf Coast crude oil production to Hurricane Katrina came against a backdrop of supply tightness in world oil markets, including lost oil production from Ecuador due to civil unrest, ongoing problems due to sabotage of facilities in Iraq, and lack of excess production capacity anywhere except Saudi Arabia. At the same time, demand for petroleum worldwide has not diminished significantly during 2005, despite high prices. The retreat from the price spike caused by the hurricane has been largely due to the release of oil from the U.S. Strategic Petroleum Reserve (SPR) and the announcement by the International Energy Agency (IEA) that it would make oil and petroleum products available from member countries' strategic reserves.
- Almost 95 percent of Gulf Coast oil production, about 1.4 million barrels per day, was shut down due to Hurricane Katrina. As of September 7, the U.S. Minerals

Management Service was estimating that Gulf Coast oil production was down to about 57 percent, or about 861,000 barrels per day. However, concerns are emerging that returning production capacity for both oil and natural gas has begun to flatten, indicating that considerable capacity in the region will remain shut down for a considerable time, potentially making the effects significantly worse than from Hurricane Ivan last year.

- As of September 6, the U.S. Department of Energy had released 12.6 million barrels of crude oil from the SPR to U.S. refiners. IEA member countries, including the U.S., have agreed to make available 2.1 million barrels per day of petroleum from strategic reserves, including over 300,000 barrels per day of gasoline primarily from Europe. The IEA has committed to provide 60 million barrels over 30 days, half of that from the U.S. SPR.
- Although California produces about 42 percent of the crude oil used as feedstocks to the state's refineries, the price of crude oil here moves in tandem with prices on world oil markets. The same is true of gasoline and diesel prices. When a shortage develops in one area and prices rise, traders in other regions have the option to transport fuels to the affected area if the costs and risks of doing so are warranted. In this way, after adjusting for transportation costs and differences in crude oil or fuel qualities, prices tend to balance out between regions over time.



In 2005, the cost of crude oil has comprised between 42 and 56 percent of the retail price of a gallon of California regular-grade gasoline.

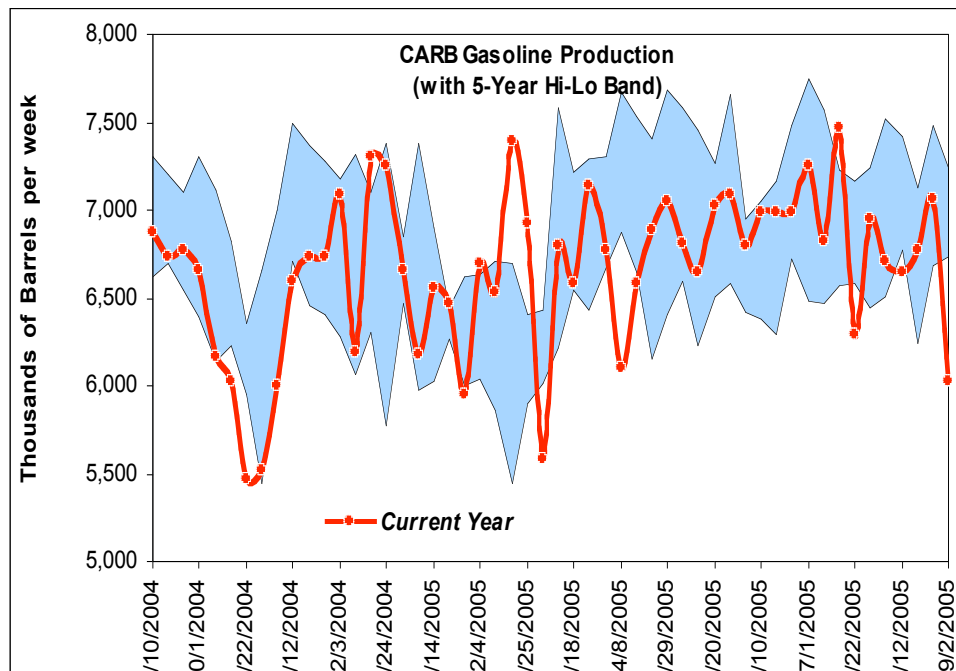
Wholesale Gasoline and Diesel Prices

- After an August that had seen several unplanned refinery outages throughout the country, the loss of refining and oil production capacity in the Gulf Coast because of Hurricane Katrina caused extremely volatile wholesale price movements in the major refining regions. U.S. gasoline inventories continued falling, reaching 190 million barrels as of September 2, down more than 4 million barrels from August 26 and over 8 million barrels below the average of the last 5 years.
- In addition to causing severe production shortfalls in the Gulf Coast, the impacts of the hurricane have caused spot wholesale prices to behave very erratically across the nation. According to the U.S. Energy Information Administration (EIA), as of September 1, Los Angeles spot wholesale gasoline prices reached \$2.96 per gallon, an increase of 74 cents from August 26. However, Los Angeles prices subsequently plummeted, falling 78 cents to \$2.15 by September 7. In the Gulf Coast, spot gasoline prices peaked at \$2.96 on September 1, an increase of \$1.07 from August 26, before falling 62 cents to \$2.34 by September 7. Initially, over 2 million barrels per day of refining capacity was shut down across the region due to the hurricane. By September 7, several Gulf Coast refineries were restarting, but at least four others, with over 900,000 barrels per day of capacity, could be out of production for months.²
- As of August 29, the difference between California and Gulf Coast spot wholesale gasoline prices had increased to 39 cents, following unplanned refinery outages in California. This difference disappeared rapidly, however, as the effects of the hurricane became evident and spot markets rapidly adjusted. California spot gasoline prices were still 22 cents above the Gulf Coast on August 31, but by the next day they had fallen to 25 cents below. By September 7, Gulf Coast spot prices were still 16 cents above Los Angeles prices.
- Wholesale California diesel price volatility has been less severe than for gasoline, but still greater than usual. U.S. distillate inventory levels have been relatively more substantial than gasoline inventories in recent weeks. U.S. distillate stocks were over 134 million barrels as of September 2, down almost a million barrels from August 26, but 11 million barrels above the average of the previous 5 years. Los Angeles spot diesel prices peaked at \$2.47 per gallon on September 1, up 42 cents from August 26, but declined sharply to \$2.09 by September 7. Gulf Coast diesel spot prices peaked at \$2.24 on September 1, before falling back to \$2.02 by September 7.

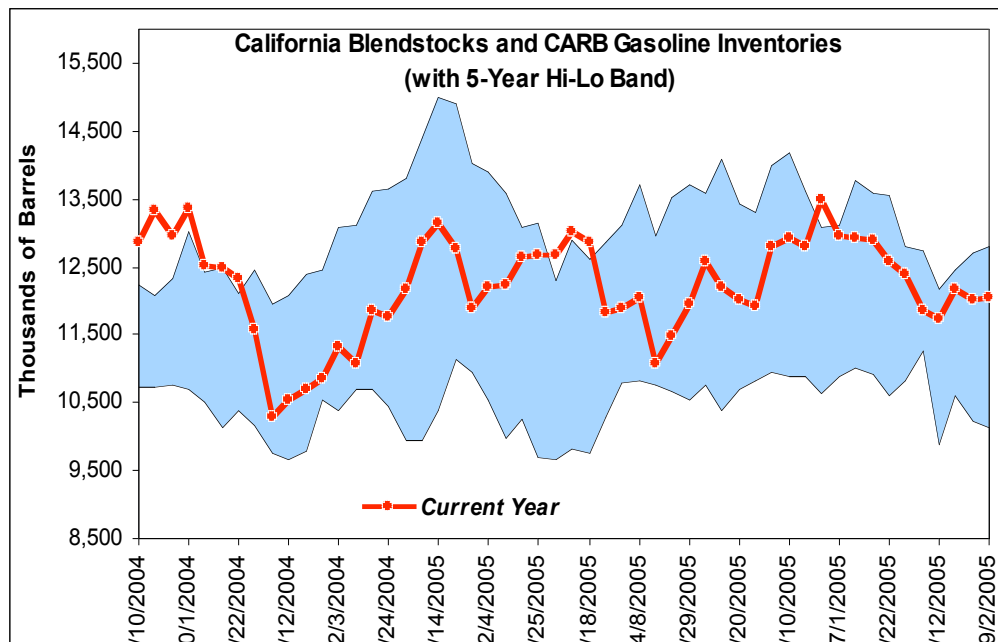
California Refinery Production and Inventories

- California reformulated gasoline production has been erratic during the last two months. Unplanned refinery outages dramatically reduced California reformulated gasoline production during the week ending July 22, to below the range for the last five years, and since then production has been struggling to build back up to more normal levels. Planned maintenance and unplanned outages during late August have caused further setbacks, with output declining further to around 6 million barrels for the week ending September 2. Inventories of reformulated gasoline have fallen, but this was compensated for by increased stocks of blending components. Combined reformulated gasoline and gasoline blendstocks remain in the upper range for the previous 5 years, virtually unchanged from the previous week. However, these stocks are still down almost 6 percent from last year.³
- California low-sulfur diesel production, both California and U.S. Environmental Protection Agency (EPA) diesel combined, is at its highest level since July and continues to be at the high end of the five-year range, where it has been for most of this year. High demand in California and elsewhere in the country, however, as well as unplanned refinery outages that affected diesel-producing units in the state, have kept steady pressure on low-sulfur diesel inventories. Throughout August, these diesel stocks have been at the low end of the five-year range. As of September 2, state low-sulfur diesel inventories were up almost 4 percent from the previous week but were still 12 percent lower than a year ago.
- The U.S. EPA has granted an emergency waiver on enforcing gasoline Reid vapor pressure (RVP) and diesel sulfur rules, due to supply disruptions caused by Hurricane Katrina. This waiver applies to all states. Higher RVP gasoline may be used where lower RVP fuel would normally be required, but conventional gasoline cannot be used in lieu of reformulated gasoline. Red-dyed high-sulfur diesel can be used as a substitute for low-sulfur diesel fuel. Before an early transition to winter gasoline blending can commence in California, however, the Air Resources Board (ARB), Division of Measurement Standards, and Office of Administrative Law must all take various procedural actions. ARB conducted an Emergency Hearing on September 8, to take comment on their proposed relief for volatility. A decision should be forthcoming in a matter of days. Refiners in California could begin producing between 4 percent and 10 percent more gasoline once all of the appropriate regulatory agencies have completed the necessary steps.
- President Bush has temporarily waived the Jones Act rules, which limit marine traffic between U.S. ports to U.S. flagged ships, due to disruptions in pipeline and maritime transportation of fuels from Hurricane Katrina. Volumes of fuels normally transported by major pipelines throughout the Eastern U.S. from Gulf Coast refineries have been increasing steadily following shutdowns associated with the hurricane. It is not yet clear what the effects and limits will be in

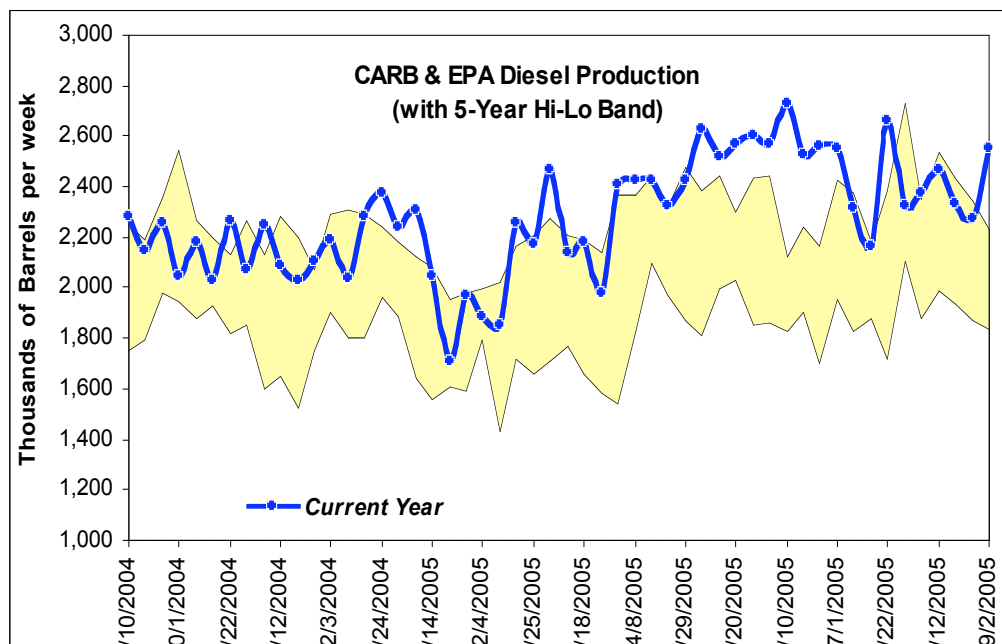
exercising this waiver, although the waiver appears to be restricted to petroleum shipments. The large number of foreign-flagged vessels heading toward the U.S. with finished fuels from refineries in Europe will provide a large pool of potential transporters of fuels between states with Jones Act rules waived.



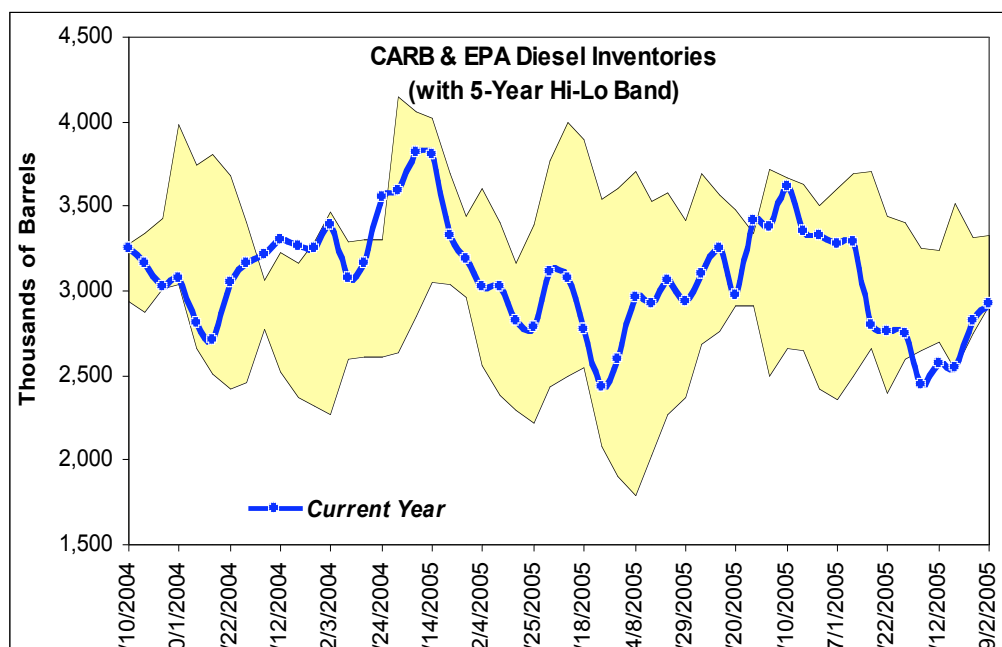
California gasoline production dropped sharply in the latest week due to planned refinery maintenance and unplanned outages.



By historical standards, California gasoline inventories have been relatively normal in recent months.



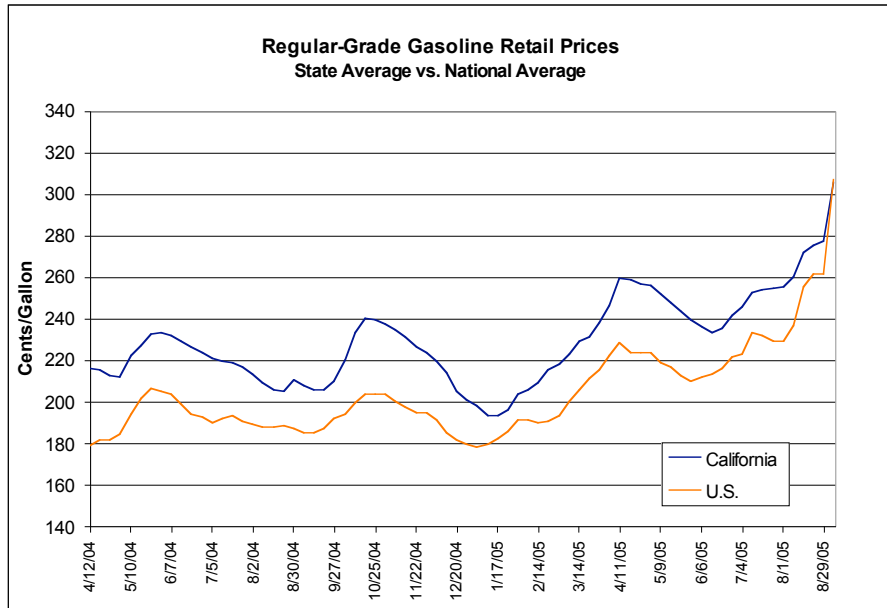
In 2005, California low sulfur diesel production has overall been relatively high.



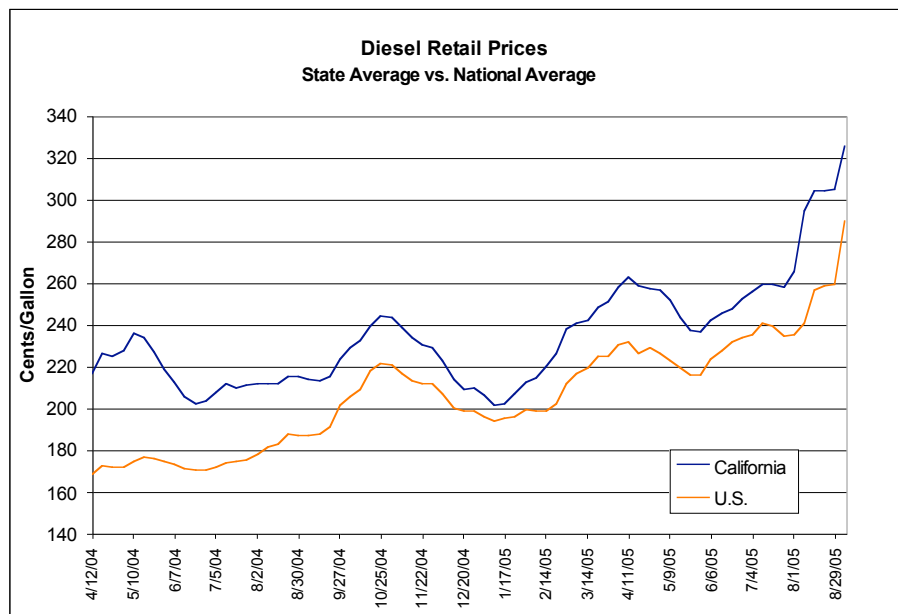
High demand in California and elsewhere has depleted California low sulfur diesel inventories in recent months although stocks are slowly rebuilding.

Retail Gasoline and Diesel Prices

- Prices of California retail regular-grade gasoline have been rising continuously since June 13, when prices averaged \$2.33 per gallon, due to crude oil price spikes, unplanned refinery outages in the state and elsewhere, and Hurricane Katrina. As of September 2, the statewide average price for regular gasoline had breached the \$3 mark, reaching a record nominal high of \$3.06 per gallon, 29 cents above the previous week and 98 cents above a year ago. The inflation-adjusted record was \$3.08 in 2005 dollars during March 1981.
- Nationally, retail gasoline prices also reached record levels at \$3.07 per gallon as of September 2, making California retail gasoline prices about 1 cent less than the U.S. average. California retail prices have averaged about 24 cents per gallon more than the U.S. over the last year.
- California retail diesel prices have also been breaking record highs in recent weeks. On August 15, state diesel prices exceeded \$3 per gallon for the first time. As of September 2, prices had climbed to \$3.25 per gallon, 21 cents above the previous week and \$1.11 above a year ago.
- The large difference between California and U.S. average retail diesel prices has receded somewhat. As of August 8, California retail prices were almost 54 cents per gallon above the U.S. By September 5, this difference had declined to 35 cents.
- Retail diesel prices remain high relative to gasoline prices in California and the nation, following a month in which several diesel-producing units in California and elsewhere in the U.S. were idled by unplanned outages. Demand for diesel and other distillates remains high worldwide, making imports more expensive; and, with sulfur regulations scheduled to become more stringent, suppliers are concerned about the adequacy of distillate inventories for next winter. As of September 2, the retail price of diesel in California exceeded regular-grade gasoline by about 19 cents, down 8 cents from the previous week. Average U.S. retail diesel prices have gone from roughly even with U.S. gasoline prices in recent weeks to 17 cents less as of September 2.



California retail gasoline prices typically exceed U.S. prices due to cleaner burning qualities and distance to other refining centers, but in the last week are lower than the U.S. average.



Retail diesel prices in California have increased their differential to the US average over the past year.

¹ ANS crude oil prices are from the Wall Street Journal. U.S. crude oil and product inventory estimates are from the Energy Information Administration of the U.S. Department of Energy.

² Spot wholesale and retail gasoline and diesel prices are from the Energy Information Administration of the U.S. Department of Energy.

³ California refinery production and inventory information are from the Petroleum Industry Information Reporting Act (PIIRA) database maintained by the California Energy Commission.